LISTING OF CLAIMS:

On page 24, line 1, please delete the current heading "CLAIMS" and insert the following new heading:

--What is claimed is:--.

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A security element ~~(2)~~ comprising a layer composite ~~(1)~~ with microscopically fine optically effective structures ~~(9)~~ of a surface pattern ~~(12)~~, which are embedded between transparent layers ~~(4; 5; 6)~~ of the layer composite ~~(1)~~, wherein the optically effective structures ~~(9)~~ are shaped into a reflecting interface ~~(8)~~ between the layers ~~(5; 6)~~ in surface portions ~~(13; 14; 15; 46)~~ of a security feature ~~(16)~~ in a plane of the surface pattern ~~(12)~~, which is defined by co-ordinate axes (x; y),

~~characterised in that~~ wherein

at least one surface portion ~~(13; 14; 15)~~ of dimensions greater than 0.4 mm ~~has~~ comprises a diffraction structure ~~(S; S*; S**)~~ formed by additive or substractive superimposition of a superimposition function (M) describing a macroscopic structure, with a microscopically fine relief profile (R), wherein the superimposition function (M), the relief profile (R) and the diffraction structure ~~(S; S*; S**)~~ are functions of the co-ordinates (x; y) and the relief profile (R) describes a light-diffracting or light-scattering, optically effective structure ~~(9)~~ which, following the superimposition function (M), retains the predetermined relief profile (R), and wherein ~~that~~ a central surface ~~(33)~~ defined by the at least portion-wise

steady superimposition function (M) is curved at least in partial regions and at any point has a local angle of inclination ~~(γ)~~ predetermined by the gradient of the superimposition function (M), is not a periodic triangular or rectangular function and changes slowly in comparison with the relief profile (R).

2. (Currently Amended) A security element ~~(2)~~ as set forth in claim 1, wherein ~~characterised in that~~ the superimposition function (M) is a portion-wise steady, periodic function with a spatial frequency ~~(F)~~ of at most 20 lines/mm.

3. (Currently Amended) A security element ~~(2)~~ as set forth in claim 1, wherein ~~characterised in that~~ the superimposition function (M) is an asymmetrical, portion-wise steady, periodic function with a spatial frequency ~~(F)~~ in the range of between 2.5 lines/mm and 10 lines/mm.

4. (Currently Amended) A security element ~~(2)~~ as set forth in claim 1, wherein ~~characterised in that~~ adjacent extreme values of the superimposition function (M) in the surface portion ~~(13, 14, 15)~~ are remote from each other by at least 0.025 mm.

5. (Currently Amended) A security element ~~(2)~~ as set forth in claim 2, wherein ~~one of claims 2 through 4 characterised in that~~ the relief profile (R) is a diffraction grating ~~(32)~~ of constant profile height ~~(h)~~, which has a grating vector with an azimuth angle ~~(φ)~~ and with a spatial frequency ~~(f)~~ of greater than 300 lines/mm.

6. (Currently Amended) A security element ~~(2)~~ as set forth in claim 2, wherein ~~one of claims 2 through 4 characterised in that~~ the relief profile (R) is an anisotropic matt structure which has a preferred direction with an azimuth angle ~~(φ)~~.

7. (Currently Amended) A security element ~~(2)~~ as set forth in claim 5, wherein ~~or claim 6 characterised in that~~ the security feature ~~(16; 16')~~ has at least two adjacent surface portions ~~(13; 14; 15)~~ and wherein ~~that~~ the first diffraction structure ~~(S)~~ is shaped in the first surface portion ~~(14)~~ and the second diffraction structure ~~(S*; S**)~~ which differs from the first diffraction structure ~~(S)~~ is shaped in the second surface portion ~~(13; 15)~~, wherein the grating vector or the preferred direction of the first relief profile (R) in the first surface portion ~~(14)~~ and the grating vector or the preferred direction of the second relief profile (R) in the second surface portion ~~(13; 15)~~ are directed substantially parallel.

8. (Currently Amended) A security element ~~(2)~~ as set forth in claim 5, wherein ~~one of claims 5 through 7 characterised in that~~ in the diffraction structure ~~(S; S*; S**)~~ the grating vector or the preferred direction of the relief profile (R) is substantially parallel to a gradient plane which is determined by the gradient ~~(38)~~ of the superimposition function (M) and a surface normal ~~(21)~~ which is perpendicular to the surface of the layer composite ~~(1)~~.

9. (Currently Amended) A security element ~~(2)~~ as set forth in claim 5, wherein ~~one of claims 5 through 8 characterized in that~~ shaped in a first surface portion ~~(14)~~ is the first diffraction structure ~~(S)~~ which is formed as the sum of the relief profile (R) and the superimposition function (M) and wherein ~~that~~ shaped in a second surface portion ~~(13; 15)~~ is

the second diffraction structure ~~(S*)~~ which is formed as the difference (R - M) of the same relief profile (R) and the same superimposition function (M).

10. (Currently Amended) A security element ~~(2)~~ as set forth in claim 5, wherein ~~one of claims 5 through 9 characterised in that~~ in the diffraction structure ~~(S; S*; S**)~~ the grating vector or the preferred direction of the relief profile (R) is substantially perpendicular to a gradient plane which is determined by the gradient ~~(38)~~ of the superimposition function (M) and a surface normal ~~(21)~~ which is perpendicular to the surface of the layer composite ~~(1)~~.

11. (Currently Amended) A security element ~~(2)~~ as set forth in claim 3, wherein ~~characterised in that~~ the relief profile (R) is a diffraction grating ~~(32)~~ which has a grating vector with an azimuth angle ~~(φ)~~ and a spatial frequency ~~(f)~~ greater than 300 lines/mm, wherein ~~that~~ the surface portion ~~(13; 14; 15)~~ in each period (1/F) of the superimposition function (M) is subdivided into a number t of partial surfaces ~~(47)~~ of the width 1/(F•t), wherein F is a spatial frequency of the superimposition function (M), wherein ~~that~~ the diffraction grating ~~(32)~~ of the diffraction structure ~~(S; S*; S**)~~, which is associated with the one partial surface ~~(47)~~, differs in at least one of the grating parameters from the diffraction gratings ~~(32)~~ of the adjacent partial surfaces ~~(47)~~, wherein ~~that~~ the subdivision and the occupation of the partial surfaces ~~(47)~~ with the diffraction structure ~~(S; S*; S**)~~ is repeated in each period (1/F) of the superimposition function (M) and wherein ~~that~~ the diffraction grating ~~(32)~~ has the azimuth angle ~~(φ)~~ and/or the spatial frequency ~~(F)~~ corresponding to the local inclination ~~(γ)~~ in the surface portion ~~(47)~~ and wherein ~~that~~ within each period (1/F) the grating parameters of the diffraction grating ~~(32)~~ step-wise or continuously traverse a

predetermined azimuth angle range ~~($\delta\varphi$)~~ or a predetermined spatial frequency range ~~(δf)~~ respectively.

12. (Currently Amended) A security element ~~(2)~~ as set forth in claim 5, wherein ~~one of claims 5, 6 and 11 characterised in that~~ in the first surface portion ~~(14)~~ the first diffraction structure ~~(S)~~ is formed from the sum of the relief profile (R) and the superimposition function (M) and wherein ~~that~~ in the second surface portion ~~(13; 15)~~ the second diffraction structure ~~(S**)~~ is formed from the first diffraction structure (S), the second diffraction structure being the first diffraction structure which is mirrored at the plane of the surface pattern ~~(12)~~.

13. (Currently Amended) A security element ~~(2)~~ as set forth in claim 5, wherein ~~characterised in that~~ the diffraction structure ~~(S)~~ formed as the sum of the superimposition function (M) and the relief profile (R) is shaped in at least one surface portion ~~(13; 14; 15)~~, wherein ~~that~~ the spatial frequency ~~(f1)~~ of the relief profile (R) is less than 2400 lines/mm and the superimposition function (M) has a local inclination (γ) measured in the diffraction plane ~~(20)~~ of the relief profile (R), wherein ~~that~~ the surface portion ~~(13; 14; 15)~~ adjoins a background field ~~(46)~~ of the security feature ~~(16)~~, wherein ~~that~~ the background field ~~(46)~~ parallel to the cover layer ~~(4)~~ has the central surface ~~(33)~~ with the local inclination $\gamma = 0°$ into which a sinusoidal diffraction grating ~~(32)~~ with a second spatial frequency ~~(f2)~~ and with a grating vector oriented in parallel in the diffraction plane ~~(20)~~ of the relief profile (R) is shaped, wherein ~~that~~ the second spatial frequency ~~(f2)~~ is so selected that upon perpendicular illumination with white light ~~(11)~~ in ~~the~~ one viewing direction at a predetermined positive viewing angle ~~(+9)~~ the surface portion ~~(13; 14; 15)~~ and the background field ~~(46)~~ do not differ ~~in~~ with respect to ~~of~~ the color of the diffracted light and wherein ~~that~~ after a 180°

rotation of the layer composite ~~(2)~~ about the surface normal ~~(21)~~ at the negative viewing angle ~~(-9)~~ the surface portion ~~(13; 14; 15)~~ and the background field ~~(46)~~ differ with ~~in~~ respect to ~~of~~ the color of the diffracted light.

14. (Currently Amended) A security element ~~(2)~~ as set forth in claim 1, wherein ~~characterised in that~~ the relief profile (R) is an isotropic matt structure.

15. (Currently Amended) A security element ~~(2)~~ as set forth in claim 14, wherein ~~characterised in that~~ the superimposition function (M) describes a relief image.

16. (Currently Amended) A security element ~~(2)~~ as set forth in claim 14, wherein ~~characterised in that~~ the superimposition function (M) describes a portion of a sphere.

17. (Currently Amended) A security element ~~(2)~~ as set forth in claim 1, wherein ~~one of claims 1 through 16 characterised in that~~ the diffraction structure ~~(S; S*; S**)~~ is restricted to a structure height ~~(H_{st})~~ of less than 40 μm and the superimposition function (M) is restricted to a variation value (H) of less than 30 μm, wherein the value ~~(z)~~ of the superimposition function (M), which is used in the diffraction structure ~~(S; S*; S**)~~ is equal to {(M) + C(x; y)} modulo variation value (H) - C(x; y), wherein the function C(x; y) is restricted in amount to half the structure height ~~(H_{st})~~.

18. (Currently Amended) A security element ~~(2)~~ as set forth in claim 1, wherein ~~one of claims 1 through 17 characterised in that further~~ surface elements ~~(17; 18; 19)~~ having ~~the~~ optically effective structures ~~(9)~~ are parts of the surface pattern ~~(12)~~ and ~~that~~ at least one of the structure elements ~~(17; 18; 19)~~ adjoins the security feature ~~(16)~~.

19. (Currently Amended) A security element ~~(2)~~ as set forth in claim 1, wherein ~~one of claims 1 through 18 characterised in that~~ arranged on at least one of the surface portions ~~(13; 14; 15)~~ is at least one identification mark ~~(37)~~ with an optically effective structure ~~(9)~~ differing from the diffraction structure ~~(S; S*; S**) and~~ , wherein that identification mark ~~(37)~~ which can be used as a reference for orientation of the layer composite ~~(1) has~~ comprises an ~~one of the~~ optically effective ~~structure~~s structure comprising at least one of a ~~(9) from the group of~~ diffractive relief structure, a ~~or~~ light-scattering relief structure and ~~structures or~~ a mirror surface.